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$\qquad$ Date: $\qquad$

## Moon Surface Temperature Graphing <br> Astronomy

Directions: Use the graph(s) below to answer the questions.


1. Compare the $X$ and $Y$ axis of the graph. What is it trying to show?
2. What is the maximum and minimum temperatures scientists have recorded on the Moon and when did those happen?
3. Justify why it is important for the graph to show the conversion of absolute zero.
4. What is the average temperature range for a lunar day according to the graph? Explain your answer and be sure to show all of your work! (Yes, this involves math.)
5. Explain the reasons for these drastic temperature ranges and also what the Moon would have to do/contain in order to be able to lower the range.

6. Compare the scale(s) provided on this graph and the one on the front. Why would this one be in Kelvin instead of Celsius?
7. During what time(s) does the surface being measured face the Sun? Justify your answer with data from the graph.
8. What affect does latitude have on surface temperatures during the day? At night? Explain each.
9. Where is there the most consistency with temperature and at what temperature is that consistency? Describe what those surface conditions would be like at that location.
10. Compare the temperature range for a lunar day at all three latitudes specified. Show your work to justify your answer! (Yes, there's math here, too.)
